

REMARKS

Claims 1-5 are pending in the application. Claims 1, 4, and 5 are amended to more particularly define the invention and to further clarify the language of the claims. No new matter has been added. Support for amended claim 1 is found in the originally filed claim and the specification, for example, at page 13, lines 7-14 (step a); page 20, lines 1-4 and lines 9-17 (step b); page 30, line 15 to page 31, line 1 (step c); and page 38, lines 9-15 (step d).

The amendments to the claims contained herein are of equivalent scope as originally filed and, thus, are not a narrowing amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

Objection to Claims 4 and 5

Claims 4 and 5 are objected to for containing a grammatical error. The claims are amended as suggested by the Examiner to overcome the objection.

Rejection Under 35 U.S.C. § 101

Claims 1-5 stand rejected under 35 U.S.C. § 101 for not reciting a concrete, tangible and useful result. Reconsideration of the rejection in view of the amendments to claim 1 is requested. In particular, step e) of amended claim 1 requires locating a translation initiation codon based on the calculated probability from step d). As such, amended claim 1 recites a concrete, tangible and useful result such that the rejection

under 35 U.S.C. § 101 is overcome. Reconsideration and withdrawal of the rejection is requested.

Rejection Under 35 U.S.C. § 112, first paragraph

Claims 1-5 stand rejected under 35 U.S.C. § 112, first paragraph, as not enabling any person skilled in the art to practice the invention commensurate in scope with the claims and for lack of written description. The rejections are respectfully traversed.

Step d) of amended claim 1 requires “using Quadratic Discriminant Analysis with a combination of feature variables that optimally classify ATG triplets in a nucleotide sequence as initiator codons or as pseudoinitiator codons based on the numerical score determined in step b) to generate a quadratic discriminant function.” The Examiner has rejected claim 1 for not enabling or providing written description for an actual quadratic discriminant function. However, it is submitted that an actual quadratic discriminant function is not necessary for practicing the invention. Applicant has provided sufficient description for one skilled in the art to determine a combination of feature variables for use with Quadratic Discriminant Analysis such that an appropriate quadratic discriminant function can be generated. Nonetheless, Applicant has also provided a specific working example wherein the various scoring functions and feature variables described were used to generate a quadratic discriminant function for finding initiator condos in an EST sequence data set. Accordingly, it is respectfully submitted that the instant specification provides sufficient description for one skilled in the art to practice the present invention. Accordingly, claims 1-5 are patentable under 35 U.S.C. § 112, first paragraph. Reconsideration and withdrawal of the rejection is requested.

Rejection Under 35 U.S.C. § 112, second paragraph

Claims 1-5 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed. In particular, Applicant has amended claim 1 to overcome the rejections. For example, step b) of claim 1 has been amended to obviate the rejection as to lack of antecedent basis. Likewise, step d) of claim 1 has been amended to require positive, active steps of “analyzing” and “evaluating.” Accordingly, amended claim 1 and claims 2-5, which depend from claim 1, are patentable under 35 U.S.C. §112, second paragraph. Reconsideration and withdrawal of the rejection is requested.

Conclusion

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 694-2393.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service on January 25, 2007, with sufficient postage as first class mail (including Express Mail per MPEP § 512), and addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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